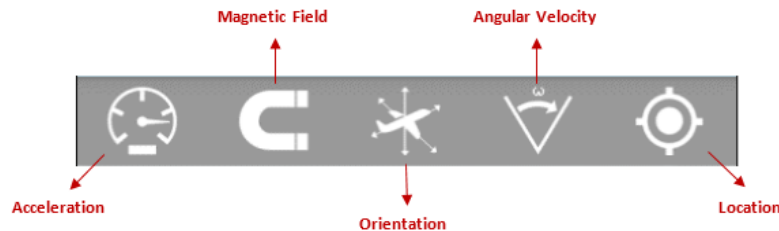


Data Acquisition from Mobile Sensors and App Development for Android and iOS

What will you learn?

Learn how you can now use MATLAB Mobile™ to acquire data from the sensors on your Android device, with the new MATLAB® Support Package for Android™ Sensors. This data can be sent to a MATLAB session running on your computer for further analysis and visualization.



Also learn how to generate readable and portable C code from your MATLAB algorithms using MATLAB Coder™, and then integrate it into an iPhone or iPad app using Apple's XCode IDE or into an Android device using the Android SDK. The app can then be executed on the simulator or downloaded onto a physical device.

Duration: 1 day

Course Objective:

What better tool than the mobile phone to really launch the 'Internet of Things'? The device is already equipped with a wide range of sensors – GPS, accelerometer, compass, light sensor, etc. – and it is also by definition connected to a network. Moreover, even the least sophisticated smartphone incorporates a processor which would make the computer of just a decade ago green with envy. The course aims at how data obtained by various sensors on a mobile phone can be acquired for further analysis.

Topics to be covered:

1. Introduction to MATLAB and Simulink
2. Interfacing MATLAB and Simulink with mobile sensors for data acquisition
3. Developing apps for Android and iOS

This will be followed by a competition with a problem statement given to the participants at the end of the hands on workshop and a functional script/models/app.

Pre-requisite:

All participants will have to bring a laptop with MATLAB R2016b installed.

We will also need to install a few add-ons to MATLAB, information on which will be informed a few days before the event.